

**WHAT HAYABUSA2 WILL FIND AT ASTEROID RYUGU, AND WHAT IT WILL REVEAL ABOUT THE SOURCE OF EARTH'S WATER.** Michael Zolensky, NASA Johnson Space Center

Water-rich carbonaceous chondrites contain evidence of aqueous alteration in the early solar system. To see this one must look carefully at the meteorites, and see past the later alteration which has generally obscured mineral textures. We suggest that these materials will dominate, be detectable, and be sampled on the surfaces of C-class asteroids, initially by the Hayabusa2 spacecraft. Thus, hydrous samples returned by this mission will help to reveal the source of water on earth.